DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: <u>04-0120F4</u>

Cty: <u>SF/ALA</u> Rte: <u>80</u> PM: <u>13.2/13.9</u>

File #: 99.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter Report No: WIR-019310
Address: 333 Burma Road Date Inspected: 13-Jan-2011

City: Oakland, CA 94607

Project Name: SAS Superstructure OSM Arrival Time: 700
Prime Contractor: American Bridge/Fluor Enterprises, a JV OSM Departure Time: 1900

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island Location: Shanghai, China

CWI Name: Mr. Oui Wen **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component:** OBG Segment

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Ultrasonic Testing (UT) – NWIT Document No: 008155

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Segment 13CE. The weld designations reviewed are as follows:

- 1. SEG3011D-066, 070, 076, 078, 082, 086, 090, 094, 098, 102, 106
- 2. SEG3011D-110, 114, 118, 122, 126, 130, 138, 140
- 3. SEG3011H-066, 070, 076, 078, 082, 086, 090, 094, 098, 102, 106
- 4. SEG3011H-110, 114, 118, 122, 126, 130, 148, 150

Ultrasonic Testing (UT) – NWIT Document No: 008160

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Segment 13AE. The weld designations reviewed are as follows:

1. SEG3007L-046

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This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW) repair welding of weld joint SEG3015F-244 and 239 located on Floor Beam to Side Plate I-Stiffener of OBG Segment 13CW. ZPMC Welder is identified as 045196. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-3G (3F) – FCM – Repair, which is used as per Welding Repair Report (WRR) B-WRR-18931.

SMAW repair welding of weld joint SEG3015L-065, 085, 061 and 066 located on Floor Beam to Side Plate I-Stiffener of OBG Segment 13CW. ZPMC Welders are identified as 066674 and 067829. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-3G (3F) – FCM – Repair, which is used as per Welding Repair Report (WRR) B-WRR-20003.

SMAW welding of weld joint SA3232-001-002 located on Deck Pane to Deck Panel of OBG Segment 13CW. ZPMC Welders are identified as 066459 and 037779. ZPMC Quality Control (QC) is identified as Mr. Li Ping. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2211-B-U2b-FCM-1.

SMAW welding of weld joint AH3002-030 to 041 located on Anchor Plate of OBG Segment 13BW. ZPMC Welder is identified as 069493. ZPMC Quality Control (QC) is identified as Mr. Li Ping. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2112 /3-FCM.

SMAW welding of weld joint SEG3014L-148 and 152 located on Longitudinal Diaphragm to I-rib stiffener of OBG Segment 13BW. ZPMC Welder is identified as 037840. ZPMC Quality Control (QC) is identified as Mr. Li Ping. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2114-FCM-1.

Flux Core Arc Welding (FCAW) repair welding of weld joint SEG3014D-163, 168, 193 and 198 located on Floor Beam to Bottom Plate I-Stiffener of the OBG Segment 13BW. ZPMC Welders are identified as 201583 and 045143. ZPMC Quality Control (QC) is identified as Mr. Wang Xiang Pin. The welding variables recorded by QC appeared to comply with the Applicable WPS- 345-3G(3F)-FCM-Repair-ESAB.

This QA inspector observed ABF personnel performed Magnetic Particle Testing on Floor beam and Longitudinal Diaphragm Stiffeners of the OBG Segment 13BW at panel point 123 and 123.5 north side.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or

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remedial efforts please contact, who represents the Office of Structural Materials for your project.

Inspected By: Kumar, Vibin Quality Assurance Inspector

Reviewed By: QA Reviewer Patel, Hiranch